

AMENDMENTS TO CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

1. - 2. (Canceled)
3. (Previously Presented) A color measuring device comprising:
a housing;
a plurality of photodetectors for generating data in response to sensed light;
a field programmable gate array for reading the data from the plurality of
5 photodetectors in parallel; and
a plurality of optical filters each being paired with one of the plurality of photodetectors, each of the filter/photodetector pairs having a responsivity which extends over different overlapping wavelength regions at longer wavelength ends of a visible spectrum.
4. (Previously Presented) The color measuring device as set forth in claim 3 further comprising a translator converting the responsivity of said pairs into a responsivity mimicking a color matching function from which a tri stimulus value can be provided when said pairs are exposed to light to be colormetrically measured.
5. (Previously Presented) The color measuring device as set forth in claim 3 wherein said filter/photodetector pairs provide a plurality of long wavelength pass electro optical filters.
6. (Previously Presented) The color measuring device as set forth in claim 3 wherein said filter/photodetector pairs are disposed in an array.
7. (Previously Presented) The color measuring device as set forth in claim 3 wherein one of said filter/photodetector pairs has a responsivity extending over an entire visible spectrum.

8. (Previously Presented) A colorimeter for measuring color temperature comprising:

a plurality of filter/photodetector pairs, each having a responsivity which extends over different overlapping wavelength regions at longer wavelength ends of a spectrum, a color temperature of which is to be measured by said colorimeter;

a field programmable gate array programmed to accumulate the responsivity from each of the plurality of filter/photodetector pairs in parallel; and

a translator converting the responsivity into a responsivity mimicking a color matching function from which values can be provided representing said color temperature.

9. (Previously Presented) The colorimeter according to claim 8 wherein said spectrum is from an emissive source.

10. (Previously Presented) The colorimeter according to claim 9 wherein said emissive source includes one of a light source, a video display, a radiating body and a black body.

11. (Currently Amended) The colorimeter according to claim 8 wherein the field programmable gate array includes:

means for receiving the responsivity from each of the plurality of filter/photodetector pairs in parallel;

means for accumulating the responsivity over a predetermined time period; and

means for outputting ~~outputting~~ the responsivity accumulated ~~accumulated~~.

12. (Canceled)

13. (Currently Amended) A process for measuring a color of an object comprising the steps of:

filtering light from the object with a plurality of filters responsive across overlapping wavelength regions at longer wavelengths of the visible spectrum;

- 5 detecting the filtered light and generating a plurality of light signals
representative of the filtered light detected;
| reading the plurality of light signals into a field programmable gate array in
parallel;
 wherein the reading includes accumulating the plurality of light signals for a
10 selected time period; and
 generating output signals based on the plurality of light signals read which
represent the color of the object.

14. (Canceled)

15. (Previously Presented) The color measuring device as set forth in
claim 3 wherein said filter/photodetector pairs provide a plurality of long-wavelength-
pass electro-optical filters.

16. (Previously Presented) The color measuring device as set forth in
claim 3 wherein said filter/photodetector pairs are disposed in an array.

17. (Previously Presented) The color measuring device as set forth in
claim 3 wherein one of said filter/photodetector pairs has a responsivity extending over
an entire visible spectrum.